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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yin Pan

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26161

7590

02/22/2005

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EXAMINER

SEFCHECK, GREGORY B

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <span style="float: right;">X</span> 09/638,372	Applicant(s) PAN ET AL.	
	Examiner Gregory B Sefcheck	Art Unit 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-15,17-28 and 30-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-15,17-28 and 30-40 is/are rejected.
- 7) ☒ Claim(s) 5 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

- Applicant's Request for Continued Examination filed 11/12/2004 is acknowledged.
- Claims 3, 16, and 29 have been cancelled.
- Claims 1, 2, 4-15, 17-28, and 30-40 remain pending.

### ***Claim Objections***

1. Claims 5 and 35 objected to because of the following informalities:

Claims 5 and 35 are amended in Applicant's amendment filed 8/13/2004.

However, the claims are improperly identified as "original".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 5, 7-10, 12, 14, 15, 17, 18, 20-23, 25, 27, 28, 30, 31, 33-36, 38, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bertin et al. (US005687167A), hereafter Bertin.

- In regards to Claims 1, 7-8, 12, 14, 20-21, 25, 27, 33-34, 38, and 40, Bertin discloses a method of providing access to a resource on a network. As illustrated in Fig. 2, Bertin shows the method implemented throughout the network utilizing computer software/code (claim 14 – computer program) and computer hardware (claim 40 - apparatus) comprising a memory and processor for storing and executing the resource providing code (claim 27 - apparatus comprising memory and processor for storing and executing code; Col. 4, lines 45-58).

Referring to Fig. 1, Bertin shows a bandwidth (resource) reservation process that involves exchanging information (installing instructions comprising filter) on the network to reserve bandwidth on each device of a destination path (Fig. 1, step 103-105; Col. 13, lines 4-17; claims 1,14,27,40 – filter to define a fixed level of access to the resource; claims 7,20,33 - instructions installed on a device, resource comprises bandwidth of the device; claims 12,25,38 - limited number of filters that can be installed on a target device of the network).

Bertin discloses managing limited link bandwidth by preempting lower priority connections to accommodate higher priority data. This may first be done by buffering data in queues, but only up to the capacity of the buffers in the nodes (Col. 1, lines 60-65; Col. 2, lines 46-53; claims 1,14,27,40 – queue data packets having predetermined priority for later transmission if amount of data exceeds level of available resources).

The bandwidth reservations (instructions) are modified to change the amount of bandwidth available (level of access to the resource) to the transit nodes that establish

the connection to the end node (Fig. 1, steps 105-106; Col. 13, lines 13-20; claims 8,21,34 – instructions are modified to change the level of access to the resource).

Referring to Fig. 2, Bertin shows that the disclosed method of managing bandwidth resources in a network is performed for a selected number of nodes 201-208 that are interconnected by Trunks 209 of a high speed network. These nodes are managed through assigned addresses, such that each node can be differentiated among the other nodes of the network (Col. 5, lines 48-50; claims 1,14,27,40 - selecting a range of network addresses of two or more devices on the network sending unrelated data flows to other devices).

- In regards to Claims 2, 15, and 28,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Referring to Fig. 1, Bertin further shows the bandwidth reservation information (filter) installed on the transit and end nodes of the network. The information is defined as providing resource access (an action) to the node (device) associated with a selected path to a destination/network address (matching criteria; Col. 13, lines 1-17; Fig. 1, steps 102-105; claim 2,15,28 – filter is defined by matching criteria to identify a network address in the range of addresses and an action that is performed wrt the address).

- In regards to Claims 4, 5, 17, 18, 30, and 31,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin discloses that each node in the network maintains a topology database that contains information about the nodes, links and bandwidth allocation (level of access to resources) in the network. The database is maintained through a topology algorithm to remain correct as links and nodes (with corresponding addresses) are added, deleted or change their characteristics (Fig. 5; Col. 8, lines 42-48; claim 4,17,30 - modifying instructions comprises changing the range of addresses; claim 5,18,31 - modifying instructions comprises increasing the range of addresses).

- In regards to Claims 9, 22, and 35,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further discloses providing access to resources based on the priority level of data being transmitted through the network (Abstract; Col. 3, lines 23-25; Col. 15, lines 5-7; claim 9,22,35 - filter defines the level of access to the resource based on a priority level of data packets being transmitted).

- In regards to Claims 10, 23, and 36,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further shows that modifying the bandwidth reservations (instructions) for data transmission of a particular priority group can be changed (Col. 16, lines 49-54; claim 10,23,36 - modifying instructions to change the amount of packets of particular priority that can be transmitted).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 13, 19, 26, 32, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin in view of Hedge (US006570875B1).

- In regards to Claims 6, 13, 19, 26, 32, and 39,

Bertin in view of Hedge discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin does not show installing a negative filter within the range of addresses in order to block an address from accessing the resources.

Hedge discloses a method, apparatus and computer program implementation for performing multi-protocol switching and routing. Hedge shows a filter (negative filter) that forbids communication between two hosts, ports, and/or applications (addresses) connected to a switch (Col. 6, lines 5-9; claims 6,13,19,26,32,39 - installing a negative filter to block an address within the range of addresses from accessing resources or block data from an address that is transmitting).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the resource access method, apparatus and program of Bertin by installing negative filters to block an address from accessing the resources of the network devices, as taught by Hedge, thereby providing a way of altering an existing resource filter for only certain devices without impacting the effect of the filter installed on other network devices in the range of addresses.



6. Claims 11, 24, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin in view of Ellesson et al. (US006459682B1), hereafter Ellesson.

- In regards to Claims 11, 24, and 37,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above. Bertin further discloses using information in the packet header of data to be transmitted over the network.

Bertin does not expressly show that the priority level is defined as instructions in the header of data packets.

Ellesson discloses a method, apparatus and computer program implementation of controlling packet traffic (providing access to resources) in an IP network. Ellesson discloses encoding the traffic class (priority level) into the headers of the data packets to be transmitted to determine their network priority (Abstract; claim 11,24,37 - priority level of the packets is defined by instructions in headers of the packets).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the resource access method, apparatus and program of Bertin by explicitly defining the priority level of data within the header of the data packet to be transmitted over the network, as taught by Ellesson. This modification would provide priority level information for incoming data to each transit node without requiring the additional resources of a separate information/signaling channel between each transit node along the path to the destination address.

***Response to Arguments***

7. Applicant's arguments filed 8/13/2004 have been fully considered but they are not persuasive.

- In the Remarks on pg. 12-13 of the Amendment, the Applicant contends that Bertin does not disclose or suggest installing one filter that defines a level of access to a resource available to two or more devices that correspond to a range of addresses on the network that send unrelated data flows to other devices on the network.
- The Examiner respectfully disagrees. In the specification, the Applicant defines the filter that comprises the installed instructions for defining a fixed level of access to a resource as "service reservations" installed on a network device by matching criteria of the device having the particular address and performing an action on the device, such as reserving of bandwidth on the network (Pg. 2, lines 3-5, Pgs. 5-7, lines 18-7). In this context, the disclosure of Bertin that shows the exchange of information for reserving network bandwidth corresponding to Fig. 1 displays "installing one filter that defines a level of access to a resource". Furthermore, Fig. 2 of Bertin shows that this procedure of bandwidth reservation within a network is done for a plurality of devices (Nodes 201-208 of network 200) that are identified within the network through a unique address. In this way, Bertin discloses a range of network addresses for which the bandwidth reservation process is provided.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Doshi et al. (US006529499B1) discloses a method for providing quality of service for delay sensitive traffic over IP networks
- Martensen (US006219708B1) discloses a system for network resource management

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS  
2-10-2005

A handwritten signature in black ink, appearing to read 'Hassan Kizou', with a stylized flourish at the end.

**HASSAN KIZOU**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**